

Schmaedick, Manuel

From: Schmaedick, Manuel
Sent: Wednesday, June 7, 2023 4:36 PM
To: Jennings, Andrew; MACY.LAMASNEY@tetrattech.com
Subject: RE: Downtown Wells Site - Jefferson Iowa

Great, thanks Andrew. This is very helpful.

I've been digging in SEMs for additional reports and appear to have been locked out after security gave us new PIV cards. Along with the two reports I sent earlier, I'm looking for more info from the RCRA site at Electrolux, they may have info on the monitoring wells that were previously installed.

As far as the public wells, there is data on Iowa Drinking Water Watch site that show hits for wells in Jefferson but these are likely blended. We'll have to coordinated with the city to see if we can get confirmed data from discrete wells.

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From: Jennings, Andrew <Jennings.Andrew@epa.gov>
Sent: Wednesday, June 7, 2023 3:38 PM
To: Schmaedick, Manuel <Schmaedick.Manuel@epa.gov>; MACY.LAMASNEY@tetrattech.com
Subject: Downtown Wells Site - Jefferson Iowa

Manny & Macy,

I went to Iowa's [GeoSam](#) to look through some well logs near the public water supply wells. Attached are a few logs I reviewed. The file "drillerlog_w4914 near harrison and vine st.pdf" appears to be PWS #9, but I couldn't confirm that in the text of the log.

Based on the attached logs and other logs near Harrison and Vine Street, the generalized geology near the site appears to be as follows:

0 - 5': fill or top soil
5 - ~100' to 110': a mix of clay, till, or shales. Mostly fine sediments that would not produce significant quantities of water.
~100 – 150' to 160': coarse sands and gravels (buried channel aquifer)
~150 to 160': apparent Pennsylvanian shale bedrock

After reviewing the Jefferson County Groundwater Investigation, Greene County, Iowa (attached), the aquifer is a buried channel aquifer that appears to trend north-south. The buried channel is depicted to exist primarily east of North Elm Street. I could not locate information regarding natural groundwater flow direction without pumping stress. The report

does include the 2, 5, and 10 year capture zones from the pumping systems. Based on the way the revised capture zones are depicted, natural groundwater flow direction appears to be towards the south to southeast.

Please share any other documents that may be relevant and let me know if you have questions on what I have shared today.

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